Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

STATE ORIGIN

AIR QUALITY PERMIT

Permittee Name:	**Louisville Forge and Gear Works, LLC**
Mailing Address:	**596 Triport Road, Georgetown, Kentucky 40324**
Source Name:	**Same as above**
Mailing Address:	**Same as above**
Source Location:	**Same as above**
KYEIS ID #:	**21-209-00043**
SIC Code:	**3462**
Regional Office	**Frankfort Regional Office** **643 Teton Trail, Suite B** **Frankfort, KY 40601-1758** **(859) 292-6411**
County:	**Scott**
Permit Number:	**S-00-040 (Initial issuance), S-00-040 Revision 1**
Log Number:	**G309 (Initial issuance), 54132 (Revision 1)**
Permit Type:	**Minor, Construction/Operating**
Application Complete Date:	**January 18, 2000 (Initial issuance),** **October 2, 2001 (Revision 1)**
Issuance Date:	**May 12, 2000**
Revision Date:	
Expiration Date:	**May 12, 2005**

John E. Hornback, Director
Division for Air Quality

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and receiving a permit for the planned activity from the Division, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

GROUP REQUIREMENTS: Group 1

Emission Point	Company Number	Description	Pollutants
09	(161)	RX Gas Generator – Koyo Thermo Systems EN-4000MT model, natural gas fueled with rated capacity of 0.205 MMBtu/hr. This unit produces 813 cf/hr of RX process gas for the sintering furnace. Construction commenced: October 2, 2001.	• PM • PM10 • CO • NO_X • SO_2 • VOC
25	(94,95)	Normalizers – 2 Holcroft model, natural gas fueled normalizers each with a rated capacity of 7.16 MMBtu/hr. A total of 14.32 MMBtu/hr. Materials input per unit: 2.25 tons/hr steel ring gears.	
27	(96,97)	Draw/Heat Treating Furnaces – 2 Holcroft model, natural gas fueled furnaces each with a rated capacity of 7.16 MMBtu/hr. A total of 14.32 MMBtu/hr. Materials input per unit: 1 ton/hr steel crankshafts.	
36	(105)	Die Heat Treat Furnace – Lindberg #1306 model 488448-G125, natural gas fueled furnace with a rated capacity of 2.798 MMBtu/hr. Materials input: 500 lbs/hr steel dies.	
55	(127-130,141-143)	Safety Kleen Degreasers– Four 23”x35”x8.5” tanks: die shop and fork lift repair (each 180 gals/yr), maintenace, and saw & shear (each 240 gals/yr). two 23”x34”x7.5” tanks: saw & shear (240 gals/yr), and MRO (120 gals/yr. And one 20”x36”x11.5” tank: forge press area (420 gals/yr). Materials input for all tanks: 1620 gals/hr Safety Kleen 150 premium solvent part #6605. Construction commenced: 1998.	VOC

APPLICABLE REGULATIONS:
None.

1. **Operating Limitations:** N/A

2. **Emission Limitations:** N/A

3. **Testing Requirements:** N/A

4. **Monitoring Requirements:**
   The permittee shall monitor the daily hours of operation and the total daily input of all raw materials and fuels of each process unit and heater at each emission point.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 1 (continued)

5. **Recordkeeping Requirements:**
   Daily records shall be maintained of the total input of all raw materials, fuels, and hours of operation of each process unit and heater at each emission point.

6. **Reporting Requirements:** N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 2

Emission Point	Company Number	Description	Pollutants
01	(2,4,6,7)	Truck Dock Heaters – Natural gas fueled heaters with the following rated capacity (each): two 2 MMBtu/hr, one 1.5 MMBtu/hr, and one 2.5 MMBtu/hr. A total of 8 MMBtu/hr. Construction commenced: 1973.	• PM • PM10 • CO • NO_X • SO_2 • VOC
02	(9-16)	Heating & Ventilating Units – Natural gas fueled heaters with the following rated capacity (each): six 3 MMBtu/hr, one 1.75 MMBtu/hr, and one 2 MMBtu/hr. A total of 21.75 MMBtu/hr. Construction commenced: 1973.	
03	(21-26,28-35)	Make Up Air Units – Natural gas fueled heaters with the following rated capacity (each): three 2 MMBtu/hr, five 3 MMBtu/hr, four 2.85 MMBtu/hr, one 2.43 MMBtu/hr, and one 0.805 MMBtu/hr. A total of 35.635 MMBtu/hr. Construction commenced: 1973, 1979 (30-35).	
04	(43-73,138)	Unit Heaters – Natural gas fueled heaters with the following rated capacity (each): four 0.105 MMBtu/hr, twelve 0.8 MMBtu/hr, four 0.5 MMBtu/hr, seven 0.4 MMBtu/hr, seven 0.3 MMBtu/hr, and one 0.092 MMBtu/hr. A total of 16.112 MMBtu/hr. Construction commenced: 1979, 1996 (138).	
05	(135)	Steel Bar Pre-Heater for 1000-Ton Shear – Natural gas fueled with rated capacity of 15.225 MMBtu/hr. Construction commenced: July 1998.	
06	(136)	Steel Bar Pre-Heater for 1300-Ton Shear – Natural gas fueled with rated capacity of 7.392 MMBtu/hr. Construction commenced: September 1996.	
23	(87)	Steel Bar Pre-Heater for 1300-Ton Shear – Natural gas fueled with rated capacity of 7.16 MMBtu/hr. *In reserve, not in operation.*	

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers.

1. **Operating Limitations:** N/A

2. **Emission Limitations:**

   1.For liquid and gaseous fuels combustion in each heater **and** each emission point with a total heat input capacity of 10 million Btu/hour or less:

   a. The particulate emission shall not exceed 0.56 pound/million Btu of actual heat input, b. The sulfur dioxide emission shall not exceed 3.0 pounds/million Btu of actual heat input.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 2 (continued)

2. For liquid and gaseous fuels combustion in each heater **and** each emission point with a total heat input capacity of more than 10 million Btu/hour but less than 250 million Btu/hour:
   a. The particulate emission shall not exceed the standard calculated by the following equation:
   $$E = 0.9634 \cdot THIC^{-0.2356}$$
   b. The sulfur dioxide emission shall not exceed the standard calculated by the following equation:
   $$E = 7.7223 \cdot THIC^{-0.4106}$$
   where E is in pounds/million Btu actual heat input, and $THIC$ is the total heat input capacity in millions of Btu/hour.
3. Visible emissions shall not exceed 20% opacity, as determined with Reference Method 9, Appendix A of 40 CFR 60.

COMPLIANCE DEMONSTRATION:
While burning natural gas, each unit is considered to be in compliance with particulate matter, sulfur dioxide and opacity standards.

3. Testing Requirements: N/A

4. Monitoring Requirements:
To provide reasonable assurance that the opacity, particulate matter and sulfur dioxide emission limitations are being met, the permittee shall monitor the daily hours of operation and the daily amounts and types of process fuels combusted in each heater at each emission point.

5. Recordkeeping Requirements:
Daily records shall be maintained of the total fuel input and hours of operation of each heater at each emission point.

6. Reporting Requirements:
Any exceedance of the opacity, particulate or sulfur dioxide emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3

Emission Point	Company Number	Description	Pollutants
07	(134,162)	2 Double End Metal Working Machines Materials input per machine: 14.7 tons/hr steel crankshafts, and 0.134 lb/hr coolant. Construction commenced: October 15, 1999, October 2, 2001.	PM, PM10, Chromium (Cr), Manganese (Mn), Nickel (Ni), Phosphorus (P), VOC, Hexylene glycol.
08*	(163-165)	KAF Line This line consists of the following units: • Shear: 4.051 tons/hr of steel bars • Forging Press: 3.3905 tons/hr of forged metal pieces and 4.55 gals/hr of graphite die lube • Sizing Press: 1.6525 tons/hr of forged metal pieces Construction commenced: October 2, 2001.	PM, PM10.
10	(74,139)	EDM Machines 12 EDM machines numbered 1 to 12. Models include Hausermann, Easco, Elox, Ingersol, and Okamoto. Materials input: 312 lbs/hr die steels and graphite electrodes, and 298.7 ft^3/hr EDM fluid. Construction commenced: 1996, 1997 (EDM machine #3).	PM, PM10, Cr, Mn, Ni, P, VOC.
11	(75)	Die Grinding / Polishing Tables 3 die polishing tables, and 7 grinders. Models include Gallmeyer Livingston, Hammonds, Pratt & Whitney, Black Diamond, and Boyer Schultz. Materials input: 195 lbs/hr die steels and cutting tools. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
12*	(76)	Electrode Machining Sharnoa CNC vertical mill model SDC 52D with a 99.9% efficient Industrial Filters Co. model DB-40 deep bed filter. Materials input: 41 lbs/hr solid graphite. Construction commenced: 1996.	PM, PM10.
13	(77)	Dual Snag Grinder Hisey-Wolf model. Materials input: 1.25 tons/hr steel billets and forgings. Construction commenced: 1997.	PM, PM10, Cr, Mn, Ni, P.
14	(78)	Crankshaft Shot Blast Blast Cleaning Products model with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 14.82 tons/hr steel crankshafts and shots. Construction commenced: 1996.	PM, PM10, Mn.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3 (continued)

Emission Point	Company Number	Description	Pollutants
15	(79)	Super 22 Wheelbrator Wheelbrator Super Tumblast model with 99.5% efficient Farr Tenkay Mark IV 3000-16D-T3 cartridge filter. Materials input: 12.98 tons/hr non-crank steel forgings and steel shots. Construction commenced: 1998.	PM, PM10, Cr, Mn, Ni, P.
16	(80)	Die Shop Shot Blast Machine Goff 60" model table blast machine with 99.5% efficient Geo Fisher model 816 cartridge filter dust collector. Materials input: 1.515 tons/hr steels dies and shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
17	(81)	Super 28 Wheelbrator Wheelbrator Super Tumblast II model with 99.5% efficient Farr Tenkay Mark IV 8000-8D-T3 cartridge filter. Materials input: 16.52 tons/hr non-crank steel forgings and steel shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
18	(82)	Toyota Crankshaft Shot Blast Blast Cleaning Products model ST-1214 with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 12.81 tons/hr steel crankshafts and shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
19	(140)	Shot Blast Cleaning Machine 34 Blast Cleaning Products model with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 16.71 tons/hr steel forgings and shots. Construction commenced: 1995.	PM, PM10, Cr, Mn, Ni, P.
20	(83,84)	Grinders, Polishing Tables, Abrasive Saw 2 grinders, 7 die polishing tables, and a Dewalt ME2 radial arm abrasive cut-off saw. Materials input: 390 lbs/hr steel dies and tools. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
21	(106-108)	Grinding Benches 3 Wolverine model #1-15B down draft grinding benches. Materials input: 195 lbs/hr steel dies. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3 (continued)

Emission Point	Company Number	Description	Pollutants
24	(137,149)	Auto Facing and Centering Machine 1 HEY model, and 1 Geo Fisher model ZM160 machines. Materials input: 10.125 tons/hr steel crankshafts, and 0.365 lb/hr coolant/water mixture. Construction commenced: 1999.	PM, PM10, Cr, Mn, Ni, P, Hexylene glycol.
26	(152-160)	Connecting Rod Line This line consists of the following units: • Powdered Metal Storage Hopper: 0.47 ton/hr of powdered metal • Forming Press: 0.47 ton/hr of powdered metal • Sintering Rotary Furnace (0.0703 MMBtu/hr): 0.47 ton/hr of forged metal billets and 70.3 cf/hr of natural gas • Forging Press: 0.47 ton/hr of hardened metal billets and 14 gals/hr of synthetic die lube Construction commenced: October 2, 2001.	PM, PM10, Mn, P.
42	(111,112)	Surface Grinders 1 Mattison model, and 1 Thompson model surface grinders. Materials input for each grinder: approximately 6.67 pounds/hr die stock steels, carbide tip inserts, and 0.79 pounds/hr water based lubricant. Construction commenced: 1997.	PM, PM10, Cr, Mn, Ni, P.
53*	(147)	A & B 8000-Ton Presses Dual model HMPT-96 with 99.9% efficient air scrubber. Materials input: 872 pounds/hr water base graphite, and 292.12 lbs/hr synthetic die lube smoke. Construction commenced: 1996.	PM, PM10.
54*	(148)	C & D 6000-Ton Presses Dual model HMPT-96 with 99.9% efficient air scrubber. Materials input: 89.96 pounds/hr water base graphite, and 30.58 lbs/hr synthetic die lube smoke. Construction commenced: 1996.	PM, PM10.

* Only 401 KAR 59:010, New process operations, applies.

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations.

401 KAR 63:020, Potentially hazardous matter and toxic substances.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3 (continued)

1. Operating Limitations:

The permittee shall comply with operating standard in 401 KAR 63:020 Section 3.

2. Emission Limitations:

1. Visible emissions shall not equal or exceed 20% opacity, as determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 59:010.
2. Hourly particulate emissions, as determined by Reference Method 5 of Appendix A to 40 CFR 60, shall not exceed the limit calculated by the following equation:

$$E = 3.59 \cdot P^{0.62}$$

where E is in pounds/hour, and P is the process weight rate (total weight of all materials introduced into the emission unit, which may cause particulate matter emissions) in tons/hour.

COMPLIANCE DEMONSTRATION:

1. To provide reasonable assurance that the visible emission limitations are being met, the permittee shall perform the following:
   a. Qualitative observations of the visible emissions shall be made weekly and a log of the observations shall be maintained to include the following:
      i. Any air emissions (except for water vapor) which were visible from stack or vent.
      ii. All emission points from which visible emissions occurred, and
      iii. Whether the visible emissions were normal for the process.
   b. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall initiate an inspection, and make any necessary repairs.
2. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amounts and types of raw materials processed. Particulate emissions from each emission point shall be calculated as follows:
   Particulate emissions, in pounds/hour = $\sum$ [(Maximum process weight rate of each raw material, in tons/hour) x (KYEIS particulate emission factor for the raw material, in pounds/ton) x (1 - particulate control efficiency, in % / 100)]
   Particulate emissions, in tons/year = (Particulate emissions, in pounds/hour) x (Annual hours of operation/year) / (2000 pounds/ton)

3. Testing Requirements: N/A

4. Monitoring Requirements:

The permittee shall monitor the daily hours of operation and the total daily input of all raw materials of each process unit at each emission point.

5. Recordkeeping Requirements:

Daily records shall be maintained of the total input of all raw materials and hours of operation of each process unit at each emission point.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3 (continued)

6. Reporting Requirements:

Any exceedance of the opacity or particulate emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 4

Emission Point	Company Number	Description	Pollutant	Allowable
22	(86)	Paint Booth Paint booth for forklifts, and small equipment. Materials input: 1 gal/hr GS-769 Duralux enamel, and 0.5 pint/hr MEK Klean Strip solvent. Construction commenced: 1979.	1. PM, PM10 2. Benzene 3. Toluene 4. Methyl ethyl ketone (MEK)	1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.007654, 0.03352 3. 19.52, 85.8 4. 30.7, 134.5
24	(88-93)	Auto Facing and Centering Machine 6 machines: 2 HEY model, 2 Balance Engineering, and 2 Seneca Falls. Materials input for all machines: 40/hr steel crankshafts, and 02 lb/hr coolant/water mixture. Construction commenced: 1996.	1. PM, PM10 2. Hexylene glycol	1. See Emission limitations in Group 3. Lbs/hr: TPY: 2. 0.0224 0.098112
40	(109)	Hand Disc Grinding Miscellaneous air and electric hand disc grinding operations throughout the plant. Materials input: max. 27.5 tons/hr steel forgings, and max. 1.76 lbs/hr grinding discs.	1. PM, PM10 2. Mn 3. P 4. Ni 5. Cr 6. Molybdenum, Mo 7. Tin, Sn 8. Vanadium, V 9. Lead, Pb 10. Arsenic, As 11. Antimony, Sb 12.Aluminum, Al 13. Zirconium, Zr	1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.18276 0.8 3. 0.00406 0.018 4. 0.04056 0.18 5. 0.36412 1.595 6. 0.4056 1.78 7. 0.08114 0.355 8. 0.02418 0.106 9. 0.00608 0.027 10. 5.103E-5 2.2E-4 11. 1.276E-4 5.6E-4 12. 0.5204 2.28 13. 1.276E-3 5.59E-3
41	(110)	Miscellaneous Grinders 30 units of pedestal and bench type grinders. Materials input: approximately 5 lbs/hr steel forgings and cutters, and 0.41 lb/hr grinding wheels.	1. PM, PM10 2. Mn 3. P 4. Ni 5. Cr 6. Mo 7. Sn 8. V 9. Pb 10. As 11. Sb 12. Al	

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 4 (continued)

Emission Point	Company Number	Description	Pollutant	Allowable
44	(113)	Die Repair Welders Lincoln and Miller models welders. Materials input: 500 lbs/hr tool die steel, 2.6 lbs/hr welding rod, and 1.08 lbs/hr welding wire. Construction commenced: 1996.	1. PM, PM10 2. Cr 3. Mn 4. Ni 5. Tin oxide, SnO 6. Mo 7. V	1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.36412 1.595 3. 0.18276 0.8 4. 0.04056 0.18 5. 0.08114 0.355 6. 0.4056 1.78 7. 0.02418 0.106 8. 0.05204 0.23
45	(114)	Forge Repair Linde and Airco models welders. Materials input: approximately 1000 lbs/hr steel forgings, 3 lbs/hr welding rod, and 0.29 lb/hr welding wire. Construction commenced: 1996.	1. PM, PM10 2. Cr 3. Mn 4. Ni 5. Tin oxide, SnO 6. Mo 7. V 8. Copper, Cu	
46	(115)	Maintenance Weld Fabrication 3 Lincoln and 3 Airco models welders. Materials input: approximately 225 lbs/hr steel shapes, and 0.25 lb/hr/welder welding rod. Construction commenced: 1996.	1. PM, PM10 2. Mn 3. Titanium dioxide, TiO_2 4. Aluminum oxide, AlO	1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.18276 0.8 3. 1.276E-3 5.59E-3 4. 0.5204 2.28
47	(116)	Maintenance General Factory Repair Airco electric models welders. Materials input: approximately 225 lbs/hr steel shapes, and 0.25 lb/hr/welder welding rod. Construction commenced: 1996.		
48	(118)	2500-Ton Ajax Press #25C Ajax 2500-ton forge press. Materials input: 2.3 tons/hr steel billets, 0.92 lb/hr water base graphite die lube, or 30.82 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.	Per press: 1. PM, PM10 2. Carbon black	Per press: 1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.1822 0.8
49	(119)	4000-Ton National Press 4000-ton Maxi National forge press. Materials input: 4.8 tons/hr steel billets, 1.92 lb/hr water base graphite die lube, or 64.32 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.		

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 4 (continued)

Emission Point	Company Number	Description	Pollutant	Allowable
50	(120,121)	6000-Ton National Presses 2 6000-ton Maxi National forging presses. Materials input per press: 7.35 tons/hr steel billets, 44.98 lb/hr water base graphite die lube, or 15.29 lbs/hr synthetic lubricate die lube. Construction commenced: June 1995, 1996 (120).	Per press: 1. PM, PM10 2. Carbon black	Per press: 1. See Emission limitations in Group 3. lbs/hr: TPY: 2. 0.1822 0.8
51	(122,123)	8000-Ton National Presses 2 8000-ton Maxi National forging presses. Materials input per press: 10.9 tons/hr steel billets, 4.36 lb/hr water base graphite die lube, or 146.06 lbs/hr synthetic lubricate die lube. Construction commenced: June 1995, 1996 (122).		
52	(124)	1600-Ton National Presses 1600-ton Maxi National forge presses. Materials input per press: 1.6 tons/hr steel billets, 0.64 lb/hr water base graphite die lube, or 21.44 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.		

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations.

401 KAR 63:021, Existing sources emitting toxic air pollutants.

1. **Operating Limitations:** N/A

2. **Emission Limitations:**

The permittee shall not emit or cause to emit each air pollutant in excess of its designated allowable in the table above.

COMPLIANCE DEMONSTRATION:

To provide reasonable assurance that the emission limitations of toxic air pollutants are being met, the permittee shall monitor the amounts and types of raw materials processed. Each of the toxic air pollutants (except for PM and PM10) emitted from all emission points in Group 4 shall be designated as toxic pollutant "n". The calculation of n emissions shall be as follows:

Emissions of n, in pounds/hour = $\sum$ [(Maximum process weight rate of each raw material containing n, in tons/hour) x (KYEIS emission factor of n, in pounds/ton) x (1 - n control efficiency, in % / 100)].

Emissions of n, in tons/year = (n emissions, in pounds/hour) x (Annual hours of operation/year) / (2000 pounds/ton)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 4 (continued)

3. **Testing Requirements:** N/A

4. **Monitoring Requirements:**
   The permittee shall monitor the daily hours of operation and the total daily input of all raw materials of each process unit at each emission point.

5. **Recordkeeping Requirements:**
   Daily records shall be maintained of the total input of all raw materials and hours of operation of each process unit at each emission point.

6. **Reporting Requirements:**
   Any exceedance of the opacity, particulate or toxic emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION C - GENERAL CONDITIONS

A. Administrative Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]

3. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:040, Section 1a, 11]

4. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:040, Section 1a, 4,5]

5. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].

6. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:040 Section 11(3)]

7. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038, Air emissions fee. The permittee shall submit an annual emissions certification pursuant to 401 KAR 52:040, Section 20. (Note include only if subject to federal NSPS or NESHAP standards or 25 TPY in an ozone Nonattainment)

B. Recordkeeping Requirements

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 52:040 Section 3(1)(f)]

SECTION C - GENERAL CONDITIONS (CONTINUED)

2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

C. Reporting Requirements

1. a. In accordance with the provisions of 401 KAR 50:055, Section 1 the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   i. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

   b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1 a) above) , the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report. [Material incorporated by reference by 401 KAR 52:040, Section 5, 3].

2. The permittee shall furnish information requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].

3. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

   The summary reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21. All deviations from permit requirements shall be clearly identified in the reports.

D. Inspections

1. In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:

SECTION C - GENERAL CONDITIONS (CONTINUED)

a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;

b. To access and copy any records required by the permit:

c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

E. Emergencies/Enforcement Provisions

1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Material incorporated by reference by 401 KAR 52:040, Section 1a, 3].

2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement.

4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

SECTION C - GENERAL CONDITIONS (CONTINUED)

F. Compliance

1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
   a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
   b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non routine maintenance performed on each control device.
   c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division.

2. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period, and
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
   f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality	Division for Air Quality
Frankfort Regional Office	Central Files
643 Teton Trail, Suite B	803 Schenkel Lane
Frankfort, KY 40601-1758	Frankfort, KY 40601-1403

3. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
   (a) Applicable requirements that are included and specifically identified in this permit; or
   (b) Non-applicable requirements expressly identified in this permit.

SECTION C - GENERAL CONDITIONS (CONTINUED)

G. Construction Requirements:

For emission points 09(161), 07(162), 08(163-165), and 26(152-160):

1. Pursuant to 401 KAR 52:040, Section 12(3), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon a written request, the cabinet may extend these time periods if the source shows good cause.

2. Pursuant to 401 KAR 52:040, Section 12(4)(a) and 401 KAR 59:005, General provisions, Section 3(1), within 30 days following construction commencement, within 15 days following start-up and attainment of maximum production rate, or within 15 days following the issuance date of this permit, whichever is later, the owner and/or operator of the affected facilities specified on this permit shall furnish to the Regional Office listed on the front of this permit, with a copy to the Division's Frankfort Central Office, the following:
   a. Date when construction commenced, (See General Condition G.1).
   b. Start-up date of each of the affected facilities listed on this permit.
   c. Date when maximum production rate was achieved, (See General Condition G.3.b).

3. a. Pursuant to 401 KAR 59:005, General provisions, Section 2(1), this permit shall allow time for the initial start-up, operation and performance testing and/or compliance demonstration of the affected facilities listed herein. However, within 60 days after achieving the maximum production rate at which the affected facilities will be operated, but not later than 180 days after initial start-up of such facilities, the owner or operator shall demonstrate compliance to a duly authorized representative of the Division.
   b. Pursuant to 401 KAR 59:005, General provisions, Section 3(1)(b), unless notification and justification to the contrary are received by this Division, the date of achieving the maximum production rate at which the affected facilities will be operated shall be deemed to be 30 days after initial start-up.

4. Operation of the affected facilities authorized by this permit shall not commence until compliance with applicable standards specified herein has been demonstrated in accordance with the requirements of 401 KAR 52:040, Section 12(4)(b). Until compliance is demonstrated, the source may only operate for the purpose of demonstrating compliance.

SECTION D - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040, Section 6. While these activities are designated as insignificant the permittee shall comply with the applicable regulation and any level of periodic monitoring specified below.

Description	Generally Applicable Regulation
1. (150, 151) Two dust collector/cartridge filter-coil repair.	401 KAR 59:010
2. (131) Gasoline storage tanks – 300-gallon capacity	401 KAR 63:020
3. (132) #2 Diesel fuel storage tanks – 300-gallon capacity	N/A
4. Waste oil storage tank – 4000-gallon capacity	N/A
5. (117) Laboratory vent	401 KAR 63:020
6. (133) Cooling tower – induced draft, cross-flow	401 KAR 59:010
7. (Connector Rod Line) Cooling Conveyor	401 KAR 63:010
8. (Connector Rod Line) Magnetic Inspection	401 KAR 63:010
9. (Connector Rod Line) Storage	401 KAR 63:010
10. (Connector Rod Line) Shipping	401 KAR 63:010
11. (KAF Line) Induction Heater	401 KAR 59:010
12. (KAF Line) Dip Tank	401 KAR 59:010
13. (KAF Line) 2 Cooling Towers	401 KAR 59:010